

### ABSTRACT

A modular power supply architecture for automatic test equipment is disclosed. The power supply architecture includes a control module having a control signal output line and a plurality of output modules. The control module includes

5 control circuitry to generate a control signal along the control signal output line and measurement circuitry coupled to the control signal output line. The output modules have respective control inputs coupled in parallel to the control signal output line to receive the control signal and respective current outputs connected in parallel. The

10 output modules are operative in response to the control signal to generate respective currents at the current outputs. A current output bus receives and sums the respective current outputs, the output bus being isolated from the control signal line.

1006523-113001